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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,604	03/25/2004	Tomoaki Ono	62807-176	5013

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EXAMINER	
SUTHERS, DOUGLAS JOHN	

ART UNIT	PAPER NUMBER
2615	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,604	ONO ET AL.	
	Examiner	Art Unit	
	Douglas Suthers	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 03/25/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2615.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, 7, 8, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Akai et al. (US 2004/0204194 A1).

4. Regarding claim 1, Akai discloses a communication terminal apparatus comprising:

a storage unit (figure 1, item 109) for storing thereinto a voice signal;

a signal processing unit (103) for stereophonically processing the voice signal stored in said storage unit in such a manner that said voice signal is outputted as a stereophonic sound;

a detecting unit (202) for detecting a peripheral condition of said communication terminal apparatus; and

a control unit (106) for switching as to whether or not the voice signal is stereophonically processed by said signal processing unit in response to a detection result obtained by said detecting unit.

5. Regarding claim 4, Akai discloses wherein: said detecting unit is a touch sensor (202) for sensing as to whether or not the user takes said communication terminal apparatus on his hand.

6. Regarding claim 5, Akai discloses wherein: when the user takes said communication terminal apparatus on his hand, said control unit controls said signal processing unit to stereophonically process the voice signal, whereas when the user does not take said communication terminal apparatus on his hand, said control unit controls said signal processing unit not to stereophonically process the voice signal (sensor changes call mode, paragraph [0052] states format selectable for each mode).

7. Regarding claim 16, Akai discloses wherein: a voice processed by said signal processing unit is a 3D-voice (stereo caller).

8. Regarding claim 7, Akai discloses communication terminal apparatus comprising:

a storage unit (figure 1, item 109) for storing thereinto a voice signal;

a signal processing unit (103) for stereophonically processing the voice signal stored in said storage unit; and

a control unit (106) for switching as to whether or not the voice signal is stereophonically processed by said signal processing unit in response to identification data (header data of figure 3) added to said voice signal when a reproducing request of the voice signal stored in said storage unit is inputted.

9. Regarding claim 8, Akai discloses wherein:

said identification data corresponds to such a data for indicating that the stereophonic processing operation of said voice signal is prohibited (mono call); and

when said identification data is added to the voice signal, said control unit controls said signal processing unit not to stereophonically process the voice signal (stereo reproduction not possible).

10. Claims 9, 11, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Osano (US 6961591 B2).

11. Regarding claim 9, Osano discloses a communication terminal apparatus comprising:

a storage unit (figure 6, item 36 contains song data) for storing thereinto a voice signal;

a signal processing unit (70) for stereophonically processing the voice signal stored in said storage unit;

a speaker (figure 5, item 80) for outputting a reproduced voice signal;

a connecting unit (77, connects stereo headphone) for connecting an earphone; and

a control unit (70) controls said signal processing unit in such a manner that when the earphone is connected to said connecting unit, the voice signal is stereophonically processed (stereo output plus ambient noise) by said signal processing unit, whereas when the earphone is not connected to said connecting unit, the voice signal is not stereophonically processed by said signal processing unit (column 3 lines 20-62).

12. Regarding claim 11, Osano discloses a reproducing method wherein:

a voice signal is stored (figure 6, item 36 contains song data);

in such a case that a reproducing instruction of said voice signal is inputted (play song), when an earphone is connected (77 detects if an stereo earphone is connected), a stereophonic processing operation of said voice signal is carried out to reproduce the voice signal, whereas when the earphone is not connected, said voice signal is

reproduced without executing the stereophonic processing operation of said voice signal (column 3 lines 20-62).

13. Regarding claim 17, Osano discloses wherein: the stereophonic processing operation is 3D-reproducting operation (reproduces 3-D ambient noise).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osano (US 6961591 B2).

16. Regarding claim 10, although Osano does not expressly disclose digital rights management, the examiner takes official notice that the use of such was well known in the art. The motivation to do so would have been to allow for copy write protection of songs and digital audio. Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to further comprise wherein said control unit controls the signal processing unit in such a manner that when data for indicating prohibition of the stereophonic processing operation of the voice signal is added to said voice signal,

even in such a case that the earphone is connected to said connecting unit, said signal processing unit does not perform the stereophonic processing operation of the voice signal.

17. Regarding claim 12, although Osano does not expressly disclose error messages, the examiner takes official notice that the use of error messages was well known in the art. The motivation to use such would have been to warn users that stereo audio files needed to be reproduced in a modified manner because a stereo output device was not present. Therefore at the time of invention, it would have been obvious to one of ordinary skill in the art to further comprise wherein: when the earphone is not connected, such a message that the stereophonic processing operation of said voice signal cannot be carried out is displayed.

18. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akai et al. (US 2004/0204194 A1) in view of De Porrtere et al. (US 6134330).

19. Regarding claim 6, Akai does not expressly disclose adding harmonics.

De Porrtere discloses wherein a signal processing unit performs such a process operation that a frequency component contained in a voice signal stored in said storage unit is multiplied by 2 (figure 2, item Hg2), and then, the doubled frequency component is added to said voice signal (AM2).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the processing of De Porrtere in the system of Akai. The motivation for doing so would have been to enable the phone to be able to produce sonically rich ring tones while reducing needed memory size. Therefore, it would have been obvious to combine De Porrtere with Akai to obtain the invention as specified in claim 6.

20. Claims 2, 3, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akai et al. (US 2004/0204194 A1) in view of Hokao et al. (US 6044279).

21. Regarding claim 2, Akai does not expressly disclose sensing illuminance.

Hokao discloses wherein a detecting unit is an optical sensor (figure 4) for sensing illuminance of a peripheral area of a communication terminal apparatus.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the sensing means of Hokao in the system of Akai. The motivation for doing so would have been to conserve battery life if unit is in a pocket or bag, by using mono playback only. Therefore, it would have been obvious to combine Hokao with Akai to obtain the invention as specified in claim 2.

22. Regarding claim 3, Hokao discloses wherein: said control unit performs control operations in such a manner that when said illuminance is larger than, or equal to a predetermined illuminance value, a voice signal is processed by said signal processing unit in a mode, whereas when said illuminance is smaller than said predetermined luminance value, the voice signal is processed by the signal processing unit in a different mode (column 3 lines 32-41).

23. Regarding claim 13, Akai discloses a reproducing method wherein:

plural sorts of melodies are stored (ring tones stored in figure 1, item 109);

one of said plural sorts of melodies is selected as a telephone calling melody which is reproduced when a telephone call is received (paragraph [0034]);

when a telephone call is received, distance data of a peripheral area is detected; and when said detected distance is larger than, or equal to a predetermined distance value, said selected telephone calling melody is processed as a stereophonic sound to be reproduced (stereo video mode), whereas when said detected illuminance is smaller than said predetermined illuminance value, said selected telephone calling melody is reproduced without executing a stereophonic sound processing operation (mono normal call mode, figure 8).

Akai does not expressly disclose sensing illuminance.

Hokao discloses wherein a detecting unit is an optical sensor (figure 4) for sensing illuminance of a peripheral area of a communication terminal apparatus.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the sensing means of Hokao in the system of Akai. The motivation for doing so would have been to conserve battery life if unit is in a pocket or bag, by using mono playback only. Therefore, it would have been obvious to combine Hokao with Akai to obtain the invention as specified in claim 13.

24. Regarding claim 14, Akai discloses a reproducing method wherein:

plural sorts of voice signals are stored (ring tones stored in figure 1, item 109);

one of said plural sorts of voice signals is selected as a notification sound (paragraph [0034]);

a reproducing time instant when said notification sound is reproduced is set (on incoming call);

when said reproducing time comes said reproducing time instant, distance data of a peripheral area is detected (202); and

when said detected distance is larger than, or equal to a predetermined distance value, said selected voice signal is processed as a stereophonic sound to be reproduced (stereo video mode), whereas when said detected distance is smaller than said predetermined distance value, said selected voice signal is reproduced without executing a stereophonic processing operation (mono normal call mode, figure 8).

Akai does not expressly disclose sensing illuminance.

Hokao discloses wherein a detecting unit is an optical sensor (figure 4) for sensing illuminance of a peripheral area of a communication terminal apparatus.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the sensing means of Hokao in the system of Akai. The motivation for doing so would have been to conserve battery life if unit is in a pocket or bag, by using mono playback only. Therefore, it would have been obvious to combine Hokao with Akai to obtain the invention as specified in claim 14.

25. Regarding claim 15, Hokao discloses wherein when said detected illuminance is larger than, or equal to the predetermined illuminance value, a sound level at which said voice signal is reproduced is made lower than that when said detected illuminance is smaller than the predetermined illuminance value (figure 4, s15).

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas Suthers whose telephone number is (571)272-0563. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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